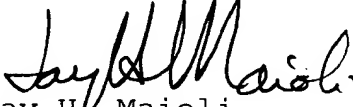


Accordingly, the amendments to the specification are made to place the application in idiomatic English, and the claims are amended to place them in better condition for examination.

An early and favorable examination on the merits is earnestly solicited.

Respectfully submitted,  
COOPER & DUNHAM, LLP

  
Jay H. Maioli  
Reg. No. 27,213

JHM/AVF/pmc

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT OF THE DISCLOSURE

The Abstract of the Disclosure has been amended as follows:

--Data is recorded in a first part [PA1] in accordance with a signal format [same as] equivalent to that of an existing CD at the lower limit [(1.5  $\mu$ m)] of an allowable value of a track pitch and the lower limit [(1.2 m/sec)] of [a] linear velocity[. As a result, the data for the maximum regeneration time (74.7 min)] , so that data can be recorded in the first part [PA1] for the maximum regeneration time. An existing CD reproducing apparatus can reproduce the audio data recorded in the first part [PA1 with no problem]. [Moreover, compressed] Compressed and encrypted audio data is recorded in a second part [PA2] at a single density or at a double density. The single density represents a recording density [same as] equivalent to that of an existing CD and the double density represents a density two [time] times larger than the single density. [Furthermore, the audio] Audio data recorded in the second part [PA2] is charged when reproduced [in order] to protect copyrights. The format of the data recorded in the second part [PA2] uses the format of a CD-ROM.--.

IN THE CLAIMS

Claims 1-84 have been amended as follows:

--1. (Amended) A data-recording medium in which data is recorded by dividing a recording area into at least first and second recording areas, [characterized in that] wherein

first data to be recorded in said first recording area [is] are unencrypted data and at least a part of second data to be recorded in said second recording area [is] are encrypted data[,] and

compression rates of said first data and said second data are [made] different [from each other].

--2. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein said first data and said second data have different contents [different from each other].

--3. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein said first data and said second data have [the same] identical contents.

--4. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein said first data [is] are uncompressed data and said second data [is] are compressed data.

--5. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein a data management area in which management information showing whether said second data [is] are recorded is formed on said recording medium.

--6. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein a data management area in which management information showing whether said first data and second data are [the same] identical is recorded is formed on said recording medium.

--7. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein data management information showing positions of said first data and said second data is recorded in said recording medium.

--8. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein said first data and said second data have different data formats [different from each other].

--9. (Amended) The data-recording medium according to claim 1, [characterized in that] wherein said recording medium is a discoid recording medium.

--10. (Amended) The data-recording medium according to

claim 9, [characterized in that] wherein said first recording area is formed at [the] an inner-track side and said second recording area is formed at [the] an outer-track side.

--11. (Amended) The data-recording medium according to claim 9, [characterized in that the] wherein said data recorded in said first recording area and [the] said data recorded in said second recording area [are] have different [from each other in] compression [rate depending] rates based on a track pitch, a linear velocity, [and/or] and a data format.

--12. (Amended) The data-recording medium according to claim 1, [characterized in that the] wherein said second data recorded in said second recording area [is] are data to be charged when reproduced and [the] data for charging [is] are recorded in a data management area.

--13. (Amended) A discoid recording medium [whose] having a disk dimension, a track pitch, and a minimum pit length [are] respectively specified in accordance with a standard, said recording medium comprising:

a first recording area allowing data for [the] a specified maximum regeneration time to be recorded by recording first data in accordance with [the] a lower limit of an allowable width of said track pitch and [the] a lower limit of an allowable width of said minimum pit length; and

a second recording area allowing second data for [the] said maximum regeneration time to be recorded[; characterized in that], wherein

said first data and said second data are discontinuously recorded.

--14. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein said first data and said second data have different contents [different from each other].

--15. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein said first data and said second data have [the same] identical contents.

--16. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein said first data [is] are uncompressed data and said second data [is] are compressed data.

--17. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein a data management area in which management information showing whether said second data [is] are recorded is recorded in said recording medium.

--18. (Amended) The discoid recording medium according to

claim 13, [characterized in that] wherein management information showing whether said first data and said second data are [the same] identical is recorded in said recording medium.

--19. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein a data management area in which management information showing positions of said first and said second recording areas is recorded in said recording medium.

--20. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein said first data and said second data have different data formats [different from each other].

--21. (Amended) The discoid recording medium according to claim 13, [characterized in that the] wherein said second data recorded in said second recording area [is] are data to be charged when reproduced and [the] data for charging [is] are recorded in a data management area.

--22. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein said second data [is] are encrypted data.

--23. (Amended) The discoid recording medium according to

claim 13, [characterized in that] wherein said first recording area is formed at [the] an inner-track side and said second recording area is formed at [the] an outer-track side.

--24. (Amended) The discoid recording medium according to claim 23, [characterized in that] wherein

a first lead-in area formed at [the] said inner-track side of said first recording area and a first lead-out area formed at [the] said outer-track side of said first recording area are included[,] and

a second lead-in area formed at [the] said inner-track side of said second recording area and a second lead-out area formed at [the] said outer-track side of said second recording area are included.

--25. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein said standard is a CD standard, [the] said lower limit of [an] said allowable width of said track pitch is equal to  $1.5 \mu\text{m}$ , and a linear velocity CLV is equal to 1.2 m/sec.

--26. (Amended) The discoid recording medium according to claim 13, [characterized in that] wherein said standard is a CD standard and [the] said specified maximum regeneration time is equal to 74.7 min.

--27. (Amended) A data recording method for recording



data in a recording medium whose recording area is divided into at least first and second recording areas, comprising the step of:

recording first data which [is] are unencrypted data in a first recording area and recording second data at least a part of which [is] are encrypted in a second recording area[; characterized in that], wherein

compression rates of said first data and said second data are [made] different [from each other].

--28. (Amended) A data recording apparatus for recording data in a recording medium whose recording area is divided into at least first and second recording areas, comprising:

recording means for recording first data which [is] are unencrypted data in [a] said first recording area and recording second data at least a part of which [is] are encrypted in [a] said second recording area, [characterized in that] wherein

compression rates of said first data and said second data are [made] different [from each other].

--29. (Amended) A data recording method for recording data in a recording medium [whose] having a disk dimension, a track pitch, and a minimum pit length [are] respectively specified in accordance with a standard, comprising the steps of:

recording first data in accordance with [the] a lower

limit of an allowable width of said track pitch and [the] a lower limit of an allowable width of said minimum [pith] pitch length [and thereby] for recording data for [the] a specified maximum regeneration time in a first recording area; and recording second data in a second recording area discontinuously from said first data.

--30. (Amended) A data recording apparatus for recording data in a recording medium [whose] having a disk dimension, a track pitch, and a minimum pit length [are] respectively specified in accordance with a standard[; characterized in that], wherein

first data [is] are recorded in accordance with [the] a lower limit of an allowable width of said track pitch and [the] a lower limit of an allowable width of said minimum pit length [and thereby,] for recording data for [the] a specified maximum regeneration time [is recorded] in a first recording area[,]; and

second data [is] are recorded in a second recording area discontinuously from said first data.

--31. (Amended) A data reproducing method for reproducing data from a data-recording medium whose recording area is divided into at least first and second recording areas and in which first data to be recorded in said first recording area [is] are unencrypted data, at least a part of second data to be recorded in said second recording area [is] are encrypted

data, compression rates of said first data and said second data are [made] different [from each other], and management information for designating whether said encrypted second data [is] are recorded is recorded, comprising the steps of:

reproducing data from said data-recording medium; and

determining in accordance with said reproduced management information whether said encrypted second data [is] are recorded and decoding said encrypted second data when determining that said second data [is] are recorded.

--32. (Amended) The data reproducing method according to claim 31, [characterized in that] wherein said encrypted second data [is] are charged when [the] said second data [is] are decoded.

--33. (Amended) The data reproducing method according to claim 31, [characterized in that] wherein said method directly outputs said encrypted second data when determining that said second data [is] are recorded.

--34. (Amended) The data reproducing method according to claim 33, [characterized in that the] wherein information about charging is output simultaneously when said second data [is] are directly output.

--35. (Amended) A data reproducing apparatus for reproducing data from a data-recording medium whose recording

area is divided into at least first and second recording areas and in which first data to be recorded in said first recording area [is] are unencrypted data and at least a part of second data to be recorded in said second recording area [is] are encrypted data, compression rates of said first data and said second data are [made] different [from each other], and management information for designating whether encrypted second data [is] are recorded[;], comprising:

reproducing means for reproducing said data from said data-recording medium;

first signal processing means for processing said first data; and

second signal processing means for processing said second data[; characterized in that], wherein

it is determined in accordance with said management information whether said encrypted second data [is] are recorded and said second data [is] are decoded by said second signal processing means when it is determined that said second data [is] are recorded.

--36. (Amended) A data reproducing method for reproducing data from a discoid recording medium [whose] having a disk dimension, a track pitch, and a minimum pit length [are] respectively specified in accordance with a standard, [which is] said medium being constituted of a first recording area allowing data for [the] a specified maximum regeneration time to be recorded by recording first data in accordance with

[the] a lower limit of an allowable width of said track pitch and [the] a lower limit of an allowable width of said minimum pit length and a second recording area allowing second data to be recorded, and in which said first data and said second data are discontinuously recorded and management information for designating whether said second data [is] are recorded is recorded, comprising the steps of:

reproducing said data from [a] said discoid recording medium; and

determining whether said encrypted second data [is] are recorded in accordance with said reproduced management information and decoding said encrypted second data when it is determined that said second data [is] are recorded.

--37. (Amended) The data reproducing method according to claim 36, [characterized in that] wherein said encrypted second data [is] are charged when decoded.

--38. (Amended) The data reproducing method according to claim 36, [characterized in that] wherein said method further directly outputs said encrypted second data when it is determined that said second data [is] are recorded.

--39. (Amended) The data reproducing method according to claim 38, [characterized in that when the] wherein said information about charging is output simultaneously when said second data [is] are directly output.

--40. (Amended) A data reproducing apparatus for reproducing data from a discoid recording medium [whose] having a disk dimension, a track pitch, and a minimum pit length [are] respectively specified in accordance with a standard, which [is constituted of] includes a first recording area allowing data for [the] a specified maximum regeneration time to be recorded by recording first data in accordance with [the] a lower limit of an allowable width of said track pitch and [the] a lower limit of an allowable width of said minimum pit length and a second recording area allowing second data to be recorded, and in which said first data and said second data are discontinuously recorded and management information for designating whether said second data [is] are recorded, comprising:

reproducing means for reproducing said data from said [data-recording] recording medium;

first signal processing means for processing said first data;

second signal processing means for processing said second data[; characterized in that], wherein

it is determined in accordance with said management information whether said encrypted second data [is] are recorded and said encrypted second data [is] are decoded when it is determined that said second data [is] are recorded.

--41. (Amended) A discoid recording medium, comprising [at least]:

a first lead-in area;

a first recording area [that is] formed at [the] an outer-track side of said first lead-in area [and] in which uncompressed data [is] are recorded;

a first lead-out area formed at [the] an outer-track side of said first recording area;

a second lead-in area formed at [the] an outer-track side of said first lead-out area;

a second recording area [which is] formed at the outer-track side of said second lead-in area [and] in which compressed data [is] are recorded; and

a second lead-out area formed at [the] an outer-track side of said second recording area.

--42. (Amended) The discoid recording medium according to claim 41, [characterized in that] wherein said uncompressed data [is] are recorded in said first recording area in accordance with a CD format at a track pitch of 1.5  $\mu\text{m}$  and a linear velocity of 1.2 m/sec.

--43. (Amended) The discoid recording medium according to claim 42, [characterized in that] wherein said compressed data [is] are recorded in said second recording area in accordance with a CD-ROM format at a track pitch of 1.1  $\mu\text{m}$  and a linear velocity of 0.87 m/sec.

--44. (Amended) The discoid recording medium according to

claim 43, [characterized in that the] wherein a recording density of said second recording area is at least two times larger than [tat] a recording density of said first recording area.

--45. (Amended) The discoid recording medium according to claim 41, [characterized in that the] wherein collateral information including [the] identification information showing whether said second recording area is present is recorded in said first lead-in area.

--46. (Amended) The discoid recording medium according to claim 45, [characterized in that the] wherein said information showing a recording area in which [the] data having [the same] identical contents as [the] said uncompressed data recorded in said first recording area [is] are included in said collateral information.

--47. (Amended) The discoid recording medium according to claim 45, [characterized in that the] wherein information showing whether said uncompressed data recorded in said first recording area [is] are encrypted and [the] a type of encryption is included in said collateral information.

--48. (Amended) The discoid recording medium according to claim 45, [characterized in that the] wherein a start address and an end address of said first recording area are included



in said collateral information.

--49. (Amended) The discoid recording medium according to claim 45, [characterized in that the] wherein information showing whether said uncompressed data recorded in said second recording area [is] are encrypted and [the] a type of encryption is included in said collateral information.

--50. (Amended) The discoid recording medium according to claim 48, [characterized in that the] wherein said start and end addresses of said second recording area are included in said collateral information.

--51. (Amended) The discoid recording medium according to claim 45, [characterized in that the] wherein charging information showing whether [the] said data recorded in at least said first and said second recording areas [is] are data to be charged is recorded in said first lead-in area.

--52. (Amended) The discoid recording medium according to claim 41, [characterized in that] wherein a mirror area is further formed between said first lead-out area and said second lead-in area of said recording medium.

--53. (Amended) A discoid-recording-medium reproducing apparatus comprising:

a head for reading data and collateral information from a

discoid recording medium [which] that is provided with at least a first lead-in area[,]; a first recording area [which] that is formed at [the] an outer-track side of said first lead-in area and in which uncompressed data [is] are recorded[,]; a first lead-out area formed at [the] said outer-track side of said first recording area[,]; a second lead-in area formed at [the] said outer-track side of said first lead-out area[,]; a second recording area [which] that is formed at [the] said outer-track side of said second lead-in area and in which compressed data [is] are recorded[,]; and a second lead-out area formed at [the] said outer-track side of said second recording area[, and] in which [the] identification information showing whether said second recording area is present and [the] collateral information including at least start and end addresses of said first and said second recording areas are recorded;

a first regeneration part to which an output signal is supplied from said head and [which] that reproduces said uncompressed data read from said first recording area on said recording medium;

a second regeneration part to which [an] said output signal is supplied from said head and [which] that reproduces said compressed data read from said second recording area on said recording medium; and

a control part to which [an] said output signal is supplied from said head and [which] that changes said first regeneration part and said second regeneration part in

accordance with said collateral information.

--54. (Amended) The discoid-recording-medium reproducing apparatus according to claim 53, [characterized in that] wherein said control part controls movement of said head in accordance with said collateral information read from said recording medium.

--55. (Amended) The discoid-recording-medium reproducing apparatus according to claim 53, [characterized in that] wherein said discoid recording medium is further set to said apparatus [and]; said apparatus is provided with a rotating part for rotating said set discoid recording medium; and said rotating part is controlled by said control part so as to change linear velocities when said head is moved from either of said first and said second recording areas of said recording medium to [the] an other recording area of said recording medium.

--56. (Amended) The discoid-recording-medium reproducing apparatus according to claim 55, [characterized in that] wherein a mirror area is further formed between said first lead-out area and said second lead-in area of said recording medium and said control part controls said rotating part so as to change said linear velocities while said head passes through said mirror part.

--57. (Amended) A discoid-recording-medium reproducing method, comprising the steps of:

reading data and collateral information by a head from a discoid recording medium [which is provided with which] that is provided with at least a first lead-in area, wherein a first recording area [which] is formed at [the] an outer-track side of said first lead-in area [and] in which uncompressed data [is] are recorded[,]; a first lead-out area is formed at [the] said outer-track side of said first recording area[,]; a second lead-in area is formed at [the] said outer-track side of said first lead-out area[,]; a second recording area [which] is formed at [the] said outer-track side of said second lead-in area [and] in which compressed data [is] are recorded[,] and a second lead-out area is formed at [the] said outer-track side of said second recording area[, and] in which [the] identification information showing whether said second recording area is present and [the] collateral information including at least start and end addresses of said first and second recording areas are recorded; and

changing a first regeneration part to which an output signal is supplied from said head and [which] that reproduces said uncompressed data read from said first recording area on said recording medium and a second regeneration part to which [an] said output signal is supplied from said head and [which] that reproduces said compressed data read from said second recording area on said recording medium in accordance with said collateral information read by said head.

--58. (Amended) The discoid-recording-medium reproducing method according to claim 57, [characterized in that] wherein said method controls [the] a rotational speed of said discoid recording medium to change linear velocities when said head is moved from either of said first and said second recording areas to [the] an other recording area.

--59. (Amended) The discoid-recording-medium reproducing method according to claim 58, [characterized in that] wherein said recording medium has a mirror area between said first lead-out area and said second lead-in area and said rotational [speeds] speed of said discoid recording medium [are] is changed when said head passes through [the] said mirror area.

--60. (Amended) The discoid-recording-medium reproducing method according to claim 57, [characterized in that] wherein said collateral information includes [the] charging information showing whether [the] said data recorded in said recording medium [is] are data to be charged and charging is performed in accordance with said charging information when reproducing [the] said compressed data recorded in said second recording area.

--61. (Amended) The discoid-recording-medium reproducing method according to claim 60, [characterized in that] wherein said method determines whether said compressed data to be reproduced [has the same] have contents [as the] identical to

said uncompressed data recorded in said first recording area and reproduces [the] said compressed data to be reproduced without being charged when said determination result shows that said compressed data [has the same] have said identical contents [as the uncompressed data recorded in said first recording area].

--62. The discoid-recording-medium reproducing method according to claim 61, [characterized in that] wherein when it is determined that said compressed data to be reproduced [does] do not have [the same] said identical contents as [the] said uncompressed data recorded in said first recording area[,] said compressed data is charged and then reproduced.

--63. (Amended) The discoid-recording-medium reproducing method according to claim 62, [characterized in that] wherein said collateral information further includes [the] said information showing an area in which data having [the same] said identical contents as [the] said uncompressed data recorded in said first recording area and said method determines in accordance with said collateral information whether [the] said compressed data to be reproduced has [the same] said identical contents as [the] said uncompressed data recorded in said first recording area.

--64. (Amended) A discoid recording medium, comprising:  
a first recording area in which data having a first

compression rate in which at least first copyright management information and second copyright management information are embedded [is] are recorded; and

a second recording area in which at least said second copyright information is embedded at [the] an outer-track side of said first recording area and data having a second compression rate [different from said first compression rate is] are recorded.

--65. (Amended) The discoid recording medium according to claim 64, [characterized in that] wherein said first copyright management information is embedded in said first-compression-rate data so that [the] said first copyright management information disappears by applying signal processing to said first-compression-rate data.

--66. (Amended) The discoid recording medium according to claim 65, [characterized in that] wherein said second copyright management information is embedded in said first-compression-rate data and second-compression-rate data so that said second copyright management information remains when applying signal processing to said second-compression-rate data.

--67. (Amended) The discoid recording medium according to claim 64, [characterized in that] wherein said second copyright management information is embedded in said first-

compression-rate data and [moreover,] said first copyright management information is embedded in said data.

--68. (Amended) The discoid recording medium according to claim 64, [characterized in that] wherein said first compression rate is equal to zero.

--69. (Amended) The discoid recording medium according to claim 68, [characterized in that] wherein said first-compression-rate data [is] are recorded in said first recording area in accordance with a CD format at a track pitch of 1.5  $\mu\text{m}$  and a linear velocity of 1.2 m/sec.

--70. (Amended) The discoid recording medium according to claim 69, [characterized in that] wherein said second-compression-rate data [is] are recorded in said second recording area in accordance with a CD-ROM format at a track pitch of 1.1  $\mu\text{m}$  and a linear velocity of 0.87 m/sec.

--71. (Amended) The discoid recording medium according to claim 70, [characterized in that the] wherein a recording density of said second recording area is at least two times larger than [that] a recording density of said first recording area.

--72. (Amended) The discoid recording medium according to claim 64, [characterized in that said recording medium is]



further [provided] comprising: a first lead-in area formed at [the] an inner-track side of said first recording area[,]; a first lead-out area formed at [the] said inner-track side of said second recording area outside of said first recording area[,]; a second lead-in area formed at [the] said inner-track side of said recording area outside of said first lead-out area[,]; and a second lead-out area formed at [the] an outer-track side of said recording area.

--73. (Amended) The discoid recording medium according to claim 72, [characterized in that] wherein collateral information including identification information showing whether said second recording area is present is recorded in said first lead-in area.

--74. (Amended) The discoid recording medium according to claim 73, [characterized in that] wherein said collateral information includes information showing a recording area in which data having [the same] contents [as the] identical to said first-compression-rate data recorded in said first recording area.

--75. (Amended) The discoid recording medium according to claim 73, [characterized in that] wherein said collateral information includes information showing whether said uncompressed data recorded in said first recording area [is] are encrypted and information showing [the] a type of [the]

encryption.

--76. (Amended) The discoid recording medium according to claim 75, [characterized in that] wherein said collateral information includes a start address and an end address of said first recording area.

--77. (Amended) The discoid recording medium according to claim 76, [characterized in that] wherein said collateral information includes information showing said uncompressed data recorded in said second recording area [is] are encrypted and information showing [the] said type of [the] encryption.

--78. (Amended) The discoid recording medium according to claim 77, [characterized in that] wherein said collateral information includes a start address and an end address of said second recording area.

--79. (Amended) The discoid recording medium according to claim 73, [characterized in that] wherein charging information showing whether [the] said data recorded in at least said first and said second recording areas [is] are data to be charged is recorded in said first lead-in area.

--80. (Amended) The discoid recording medium according to claim 72, [characterized in that] wherein a mirror area is further formed between said first lead-out area and said

second lead-in area of said recording medium.

--81. (Amended) A recording medium copy control method, comprising the steps of:

determining whether second copyright management information is detected from data read from a recording medium provided with a first recording area in which data having a first compression rate and in which first copyright management information and said second copyright management information are embedded [is] are recorded and a second recording area in which data having a second compression rate different from said first compression rate [is] are recorded;

determining whether said first copyright management information is detected when it is determined that said second copyright information [if] is detected; and

copy-controlling [the] said data read from said recording medium in accordance with said first copyright management information when it is determined that said first copyright management information is detected.

--82. (Amended) The recording-medium copy control method according to claim 81, [characterized in that said method realizes] wherein a first generation copy is realized when it is determined that said second copyright management information is not detected.

--83. (Amended) The recording-medium copy control method

according to claim 82, [characterized in that said method performs] wherein copy control is performed in accordance with said second copyright management information when it is determined that said first copyright management information is not detected.

--84. (Amended) The recording-medium copy control method according to claim 83, [characterized in that said method inhibits] wherein copying is inhibited in accordance with said second copyright management information when it is determined that said first copyright management information is not detected.--